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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/606,407	06/29/2000	Jang Jin Yoo	8733.2013\$	7073
30827	7590	12/24/2003	EXAMINER	
MCKENNA LONG & ALDRIDGE LLP			SCHECHTER, ANDREW M	
1900 K STREET, NW			ART UNIT	
WASHINGTON, DC 20006			PAPER NUMBER	

2871

DATE MAILED: 12/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/606,407

Applicant(s)

YOO ET AL.

Examiner

Andrew Schechter

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 21
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7 August 2003 have been fully considered but they are not persuasive.

The applicant argues that *Kim, et al.*, U.S. Patent No. 6,462,798, does not disclose all the features of the invention recited in the independent claims. This is not persuasive, as described below in the rejections in view of *Kim*. In particular, Figs. 11 and 12 of *Kim* show the dielectric structures in neighboring pixels having different configurations.

The examiner calls the attention of the applicant to the interview of 16 December 2003, in which two potential ways of overcoming the rejections in view of *Kim* were discussed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-16 and 18-37 are rejected under 35 U.S.C. 102(e) as being anticipated by *Kim et al.*, U.S. Patent No. 6,462,798.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Kim discloses [see Figs. 3, 11, and 12, among others] a multi-domain LCD comprising first and second substrates [31, 33] opposing each other, between them a liquid crystal layer [unlabeled], gate lines [1], data lines [3] defining at least two pixel regions, a common auxiliary electrode [15] on a layer equal to the gate lines surrounding the pixel region, a gate insulating film [35], a passivation film [37] on the gate insulating film, a pixel electrode [13] with a plurality of domains, a light-shielding layer [25] on the second substrate, a color filter layer [23] on the light-shielding layer, a common electrode [17] on the color filter layer, at least one electric field distortion dielectric structure [53] in each of the at least two pixel regions, wherein the dielectric structures in neighboring pixel regions have different configurations [see Figs. 11 and 12, where the configurations are mirror-images of each other], and an alignment film [not shown in figures, see abstract]. Claims 1, 35, and 36 are therefore anticipated.

The pixel electrode and light-shielding layer can overlap the common-auxiliary electrode, as shown in Fig. 5a, so claims 2 and 3 are also anticipated. The pixel

electrode does not overlap the common auxiliary electrode in Fig. 3a, while the light-shielding pixel does overlap the pixel electrode, so claims 4 and 5 are also anticipated. The gate insulating film and passivation film are formed on the whole substrate, which includes a "region except the common auxiliary electrode", so claim 6 is also anticipated.

The common auxiliary electrode is electrically connected with the common electrode [col. 4, lines 34-37], so claim 7 is also anticipated. There is a thin film transistor, described as being that of U.S. Patent No. 5,694,185 [col. 6, lines 6-10], which is formed at the crossing of the gate and data lines, so claim 8 is also anticipated. The dielectric structures can be on the pixel or common electrodes, or on the color filter layer [col. 6, lines 18-20], so claims 9-11 are also anticipated.

The pixel electrode, passivation layer, gate insulating film, common electrode, and/or color filter layer can have an electric field induction window [col. 6, lines 20-24], as can an overcoat layer on the color filter layer [col. 9, lines 61-62], so claims 12-16, 18, and 37 are also anticipated. The passivation layer is BCB or SiNx [col. 4, lines 26-28] so claims 19 and 20 are also anticipated. The pixel electrode and common electrode are ITO and the common auxiliary electrode is Al [col. 4], so claims 21-23 are also anticipated.

The dielectric constant of the dielectric structure is smaller than that of the liquid crystal and the dielectric structure is a photosensitive material, such as BCB [col. 4, lines 49-55], so claims 24-26 are also anticipated.

The pixel region is divided into two regions with different driving characteristics, and different alignment characteristics; at least one region can be aligned, and/or there are regions which are not aligned [col. 6, lines 46-63], so claims 27-30 are anticipated.


The liquid crystal has positive or negative dielectric anisotropy, there can be a negative uniaxial or negative biaxial film, and the liquid crystal can include chiral dopants [col. 2, lines 30-40], so claim 31-34 are anticipated.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Schechter whose telephone number is (703) 306-5801. The examiner can normally be reached on Monday - Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (703) 305-3492. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-4711.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


Andrew Schechter
Patent Examiner
Technology Center 2800
18 December 2003